

ABSTRACT

--A catalyst system for the polymerization of α -olefins prepared by a process which includes catalyst activation whereby a solid transitional metal compound is contacted with an organoaluminum compound and catalyst prepolymerization whereby a premonomer is prepolymerized in the presence of the activated catalyst. High activity, low fines polymerization can be achieved if in the first step of catalyst activation a first reaction mixture is prepared by contacting the solid transitional metal compound with a first organoaluminum compound in the presence of an oil and in the second step, the first reaction mixture is contacted with a second organoaluminum compound to give a second reaction mixture, the second organoaluminum compound being the same as or different from the first organoaluminum compound.--